How to Treat Mastitis infections in Milk-Producing Sheep and Goats

What is this research about?
Mastitis is the infection of the mammary gland or udder. Bacterial mastitis is diagnosed by the presence of bacteria, by increased numbers of white blood cells in mammary fluid, and by tissue changes. Bacterial infection causing mastitis usually occurs through the teat of the animal rather than being transmitted through blood. Mastitis is an important disease because it is difficult to control and causes problems for animal welfare, and because of its economic impact. The purpose of this research is to identify treatment protocols for mastitis in sheep and goats.

How can you use this research?
Dairy farmers milking sheep or goats can use this research to better understand the proper methods needed to treat mastitis in these animals.
Veterinarians can use this research to better understand approaches for treating mastitis.

What did the researchers do?
The authors of this paper reviewed current and widely accepted methods to treat mastitis caused by bacteria in sheep and goats. The authors also examined why some treatment methods fail.

What you need to know:
Mastitis, or inflammation of mammary glands and teats, is a worldwide issue that affects sheep and goats as well as dairy cattle. To reduce its negative impact and allow animals to recover and be protected from future infections, antimicrobial treatment needs to be quick and effective. Broadly acting medicines should be followed by targeted approaches. Treatment may fail due to incorrect medication or contamination. Treatment of mastitis can affect milk production and testing is necessary before milk can be sold from treated animals.

Keywords:
control, dry-ewe treatment, goat, mastitis, sheep, staphylococcus, treatment

Project supported by: A program of the OMAFRA-U of G Partnership.
**What did the researchers find?**

Treatment should be quick and effective. The best treatment for mastitis is to use specific medicines (antimicrobials) that target the exact bacteria that are causing symptoms. However, it can take a long time to identify the exact bacteria causing mastitis. Therefore, treatment often begins with a medicine designed to reduce more than one type of infection. Pre-treatment samples from the sick animal are used to identify the specific bacteria causing mastitis. Later treatment is then targeted to these bacteria.

Treatment can be administered using special tubes containing suitable formulations of antimicrobials inserted into the teats, or through injection of antimicrobials. Care should be taken when adapting treatment doses from cows to sheep and goats. Treatment failures occur due to contamination, using the wrong medicine, or not using enough medicine. Injection is the preferred method when the illness is evident (e.g. the animal has a fever or the udder is badly inflamed). Treating the animal when it is not producing milk allows for longer contact time between the antimicrobial and bacteria, and usually results in a higher cure rate than when administered to a milking animal. Testing is necessary to check for drug residue in milk.

**About the University of Guelph researcher:**

Paula I. Menzies is an Associate Professor with the Ontario Veterinary College at University of Guelph.

Email: pmenzies@uoguelph.ca

**Article citation:**


**Cite this work:**

University of Guelph, Institute for Community Engaged Scholarship (2013). How to Treat Mastitis infections in Milk-Producing Sheep and Goats. Retrieved from: [http://hdl.handle.net/10214/6546](http://hdl.handle.net/10214/6546)

This summary is a project of the Institute for Community Engaged Scholarship (ICES) at the University of Guelph, with project partners: the Catalyst Centre, SPARK Program at the University of Guelph, and the Knowledge Mobilization Unit at York University. This project is part of the Pan-Canadian Research Impact Network. [http://www.csahs.uoguelph.ca/pps/clear_research](http://www.csahs.uoguelph.ca/pps/clear_research)